ENCODING A MAGNETIC STRIPE OF A CARD WITH DATA OF MULTIPLE CARDS

BACKGROUND

Consumers today use many types of cards, such as payment cards (e.g., credit cards, debit cards, prepaid gift cards, etc.), loyalty cards, library cards, identification cards, etc., some of which are used to make purchases. Consumers also carry other objects to make purchases, such as a smart phone with a digital wallet. Some consumers find carrying such an array of cards and payment objects inconvenient and burdensome. For example, all these multiple cards may add to an overstuffed wallet or purse making it difficult to find a particular card. Consequently, when making a purchase, the consumer may pick the first payment card that he finds to pay for a purchase. In retrospect, the first found card may not be the best choice, such as when the consumer pays for a purchase using a credit card when he has a pre-paid gift card that he can use. Further, some transactions involve multiple cards, such as a purchase made at a merchant that offers a loyalty program. In such a case, the consumer may need to find two cards, such as a credit card to pay for the purchase and a loyalty card to obtain loyalty points for the purchase.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments of the present invention will be described and explained through the use of the accompanying drawings in which:

FIG. **1** is an illustration of a process for paying for a purchase using a proxy card;

FIG. **2** is an illustration of a process for paying for a purchase using a payment object;

FIG. **3**A is an illustration of a subset of components of or associated with a first embodiment of a financial system for processing financial transactions and associated fund transfers;

FIG. **3**B is an illustration of a subset of components of or associated with a second embodiment of a financial system for processing financial transactions and associated fund transfers;

FIG. **4**A is an illustration of components of or associated with a third embodiment of a financial system for processing financial transactions and associated fund transfers;

FIG. **4**B is an illustration of components of or associated with a fourth embodiment of a financial system for processing financial transactions and associated fund transfers;

FIG. **4**C is an illustration of components of or associated with a fifth embodiment of a financial system for processing financial transactions and associated fund transfers;

FIG. **5**A is an illustration of components of or associated with a first embodiment of a financial system for processing financial transactions and associated fund transfers;

FIG. **5**B is an illustration of components of or associated with a second embodiment of a financial system for processing financial transactions and associated fund transfers;

FIGS. **6**A and **6**B are a flow charts illustrating a method for processing a payment made using a payment object;

FIG. **7** is a flow chart illustrating an example of a method for selecting a payment account to use to pay for a financial transaction;

FIGS. **8**A, **8**B, and **8**C are illustrations of a listing of payment accounts associated with a proxy card being displayed on a smartphone;

FIG. **9** is a flow chart illustrating operations of a method for selecting a payment account based on location information;

FIG. **10** is a flow chart illustrating operations of a process for associating a magnetic stripe card with a proxy card;

FIG. **11** is an illustration of one type of proxy card;

FIG. **12** is a flow chart illustrating a process for encoding a magnetic stripe area of a magnetic stripe card with data from multiple cards;

FIG. **13** is an illustration of a magnetic stripe card including a magnetic stripe emulator; and

FIG. **14** is a high-level block diagram showing an example of processing system in which at least some operations related to a selecting a preferred payment mechanism can be implemented.

DETAILED DESCRIPTION

In this description, references to "an embodiment", "one embodiment" or the like, mean that the particular feature, function, structure or characteristic being described is included in at least one embodiment of the technique introduced here. Occurrences of such phrases in this specification do not necessarily all refer to the same embodiment. On the other hand, the embodiments referred to also are not necessarily mutually exclusive.

This application discloses technology related to a technique of encoding a magnetic stripe area of a magnetic stripe card with account data of multiple cards or accounts. The magnetic stripe card can be a proxy card, which is a card that can be associated with account data associated with various types of cards and accounts, such as a payment card or payment card account, an identification card, a library card, a membership card or account, etc. For example, a proxy card can be associated with account data from a driver's license, a credit account, a debit card, a pre-paid gift card, and a loyalty card, among others. The account data can be a record identifier, such as an identifier that identifies a driver's license, a passport, etc.

The consumer has access to account data of all of the multiple cards while carrying only the proxy card, and can use the proxy card for purchases and other transactions. As a result of having the proxy card, the consumer is relieved of the burden of having to carry all of his credit cards, debit cards, automated teller machine (ATM) cards, gift cards, etc. Further, the magnetic stripe area of the magnetic stripe card can be encoded such that the magnetic stripe area has account data of multiple cards at the same time. By having such an encoding, with just one swipe of the magnetic stripe card through a card reader, the card reader can read the account data of the multiple cards from the magnetic stripe area.

The cards selected for a given use can be selected based on any of various types of criteria. For example, the selection can be based a random selection, an indicated time, an indicated location, an indicated location of the magnetic stripe card, the last card selected, an indication of cards that are accepted by a merchant, an indication that a card is contextually relevant, an associated transaction, etc. Using location as an example of a criterion, when the consumer uses the magnetic stripe card, such as by swiping the magnetic stripe card through a card reader associated with a point of sale (POS) system, location information indicating the location of the magnetic stripe card can be obtained.

Account data of a first card is selected to use for the transaction based on the location information. The location can be, for example, a geographic location indicated by a global positioning satellite (GPS) coordinate. The GPS coordinate can be correlated with a merchant, and an account can be selected based on the magnetic stripe card being at the merchant. For example, an account associated with a gift card